case of Calhoun versus USA, Case Number 04-10480, in the U.S. District Court for the District of Massachusetts.

We are going back on record now, and the time is 2:29 p.m.

Q. BY MR. APPEL: Dr. Elwyn, now, in addition to the Attention-Deficit/Hyperactivity Disorder, do you have an opinion as to -- a reasonable degree of medical certainty, as to whether Estella is currently suffering from any other psychiatric disorders?

A. Yes, I do have an opinion.

Q. And what is that?

A. In my opinion, Estella also suffers from the condition known as Oppositional Defiant Disorder.

Q. Could you describe what that is?

A. Sure. Again, we go back to the DSM, which is our textbook that sort of sets forth the criteria for any given psychiatric disorder.

And according to the DSM, Oppositional Defiant Disorder consists of a pattern of negativistic, hostile, and defiant behavior lasting at least six months during which four or more of the following are present. And then it lists those,

which are things like often loses temper, often argues with adults, often actively defies or refuses to comply with adults' requests or rules, often deliberately annoys people, often blames others for his or her mistakes or misbehavior, is often touchy or easily annoyed by others, is often angry and resentful, is often spiteful or vindictive.

The disturbance in behavior has to cause clinically significant impairment in social, academic, or occupational functioning. The behaviors can't occur exclusively during the course of a psychotic or mood disorder. And the individual can't meet criteria for Conduct Disorder or, if the individual is 18 years or older, for Antisocial Personality Disorder.

So that's kind of what it is.

The reasons why I think this condition is present in the case of -- of Estella is that, again, if you look through the record, you find different instances of her being described as having oppositional kinds of behaviors.

More recently, though, and -- well, it's consistent throughout her history, but -- but certainly more -- more consistent at home recently or -- I don't mean recently, but I mean at home --

predominantly at home rather than being at school so much.

The parents report that -- that Estella is oppositional, she is defiant, she does argue with her parents, she does refuse to do things, she -- she does talk back to them. She does things that are against the rules, she doesn't want to accept consequences of discipline, she is touchy or easily annoyed, she gets -- she loses her temper fairly easily. In fact, I was interested in seeing that her current teacher has described this as occurring very often. And she sometimes, you know, lies to get out of trouble or avoid obligations.

And so based upon the presence of these symptoms, she appears to meet the diagnostic criteria for Oppositional Defiant Disorder.

Q. Is there a relationship between these two disorders, ADHD and ODD, Oppositional Defiant Disorder? Is there some correlation between the two?

A. Yes, there is. Very often, the conditions are very often comorbid. If you're looking at an individual who has ADHD, it's very common to find the presence of a disruptive behavior disorder, either Oppositional Defiant Disorder or Conduct

Disorder, and it's present in -- I've seen rates as high as 85 percent in the literature. So -- so they're very often comorbid, occur together, and we -- we see them a lot in the clinic together.

Q. Do you have an opinion as to whether -- again, to a reasonable degree of medical certainty, as to whether anything about the parents' behaviors has caused either Estella's ADHD or her ODD?

A. I -- I do.

Q. And what is that?

A. Well, let's begin with ADHD. As I think I mentioned, ADHD is -- is kind of a neurological disorder. In other words, it's one that's highly biologically based. It's -- according to some -- some experts, there's never -- there is no convincing sort of psychosocial explanation for ADHD that is -- is convincingly demonstrated.

So when we're looking at ADHD, it would be very unusual, to begin with, for me to think that, absent some really sort of, I guess, grossly pathological treatment by the parents, that you -- you just don't really see it very often in kids.

I mean, it's possible in certain circumstances. I could maybe come up with a -- one. But -- but you just don't see it that much. So to

begin with, it's less likely that ADHD would be caused by parental sort of child -- child-parent dynamics.

Certainly in this case, when I review the specifics of the case, I don't find -- I don't find any kind of sort of gross pathology that would lead me to the conclusion that there's any real significant influence of, say, parenting style or, you know, parent-child struggles or something like that in the case of ADHD.

In the case of Oppositional Defiant Disorder, it's -- it's less clearly defined in terms of what causes it, and it's thought to be sort of multifactorial. And certainly the parent-child dynamic is an important factor in -- that has to be considered in the development of the condition. And so things that affect the parent-child dynamic can affect whether -- whether or not a kid has Oppositional Defiant Disorder.

So in the specifics of this case, I think there -- there may be some parental -- sort of parent-child kinds of relational issues that are present that are -- that are having an effect upon the case.

And specifically what I mean is it's been

biological mechanisms at play that if -- if something is -- is important in the development of ADHD, that it -- it is probably important in the development of the ODD as well, and that being in this case the neurological insult.

Q. And would that be the basis for your --

Do you have an opinion that the neurological insult is more likely than not a substantial contributing factor in her -- in Estella's developing ODD?

MR. GIEDT: Once again, motion to strike. Objection. Motion to strike, 26(a)(2)(B) --

MR. APPEL: Yeah.

MR. GIEDT: -- failure to state the basis and reasons for your opinions and the data and other information considered in your report.

Q. BY MR. APPEL: Go ahead.

A. Yes -- yes, I do. And that opinion is that the neurological injury that Estella suffered is an important contributing factor to the development of her ODD both for -- well, for the reasons that I just stated; one being biological factors that may impact upon her development, and the second being, you know, what that does -- what -- what going through that sort of thing with a child does to your

relationship with the child.

Q. Do you have any impressions with respect to the effect of Silas's deployment in Iraq and that -- the effect of that on -- on Estella and her psychological condition?

A. I do have some impressions.

Q. And what are they?

A. Well, according to my report -- and I believe it to be correct -- Silas wasn't deployed to Iraq until -- was it October of 2003, I think?

Q. December.

A. I'm sorry. December of 2003. And as we discussed when I reviewed the history, prior to that time, Estella was already exhibiting significant behaviors of, you know, disruptive behaviors. And so I don't think that it would be reasonable, you know, temporally to say that one caused the other.

On the other hand, you know, certainly must -- must have been more difficult to have a difficult -- you know, these difficult behaviors in your house when there's only one parent rather than two, so --

But those would be my impressions, yes.

Q. Doctor, what is a -- and now I'm referring to your report; in particular, your -- the Axis --

In her case, in the case of Estella, I would say that she does have some -- some factors that are positive in that, you know, she comes from a -- an intact family of a socioeconomic status that's not on the lower side, the -- the educational level of her parents is high, and she herself has been able to sort of do okay in school, I guess, B's and C's, although, you know, she's not doing as well now.

On the other hand, she does have a comorbid condition, the Oppositional Defiant Disorder, which sort of worsens the prognosis. And she does appear to have had symptoms from a very early age, which gives us sort of a chronicity to the condition at this point which makes it less likely to remit.

So I don't think it's possible to come up with a specific number or percentage of likelihood that it will either persist or remit. Usually they say nowadays, particularly more modern studies that are a little more rigorous, that, you know, 70 to 80 percent or as low as 60, you know, about two-thirds, remains -- of -- of kids with ADHD continue to have it into adolescence, and then from adolescence to adulthood, there will be a percentage that persists. I think that number is the most

controversial, but I've seen numbers of, you know, between something like 46 percent and 66 percent continue into adulthood.

So the -- there is a substantial -- a substantial likelihood that she will continue to have these problems just based strictly on the percentages.

And as far as what those problems might be, I'm not sure if you're interested, but I could sort of go into that a little bit.

Q. Yes, please. Is there a substantial likelihood that she will continue to have academic problems?

A. Yes. Kids who have --

MR. GIEDT: Objection.

THE WITNESS: -- ADHD -- in terms of academic risks, she does have problems currently. It's likely she'll continue to have problems. You know, school only gets more difficult. You know, and recess is eliminated.

You know, it's harder for kids who have ADHD, the more academic and rigorous the -- as you go along, and so kids who have ADHD, particularly into adolescence and so on, are more likely to have problems, they're less likely to succeed in school,

more likely to fail, more likely to repeat grades.

You know, this sort of -- this sort of problem, I guess, if it goes on into adulthood, will then transfer sort of from the school environment to the work environment. And we know from studies that adults with ADHD are more likely to change jobs more frequently, they're more likely to sort of underperform and -- and not have the success that they would otherwise have in the workplace. They're more likely to be fired. So I think those -- those risks are -- are there for her.

In addition, there are a whole host of other risks. We know that --

Q. What would they be?

MR. GIEDT: Yeah.

Q. BY MR. APPEL: Go head. You can continue. What would they be?

A. Okay. Well, one would relate to safety concerns. Kids with ADHD are more likely to suffer physical injury from -- than other kids who don't have ADHD, which is certainly understandable if they're climbing about and that sort of thing. That persists.

And over time I know that there have been studies done that look at driving records and

difficulties in driving that folks with ADHD have versus those who don't. I think there are more -- more tickets issued to those who have ADHD. Those who have ADHD are more likely to be involved in motor vehicle accidents than those who don't have ADHD. So it's a risk factor for that.

In terms of interpersonal relationships, kids with ADHD are more likely to suffer socially. It's kind of understandable if you have a -- a peer who's always bothering you or always, you know, interrupting your conversations, you kind of tend not to like that person as much, and so they suffer in that regard.

When they get older, they have more relationship problems. They're more likely to have had sexual relations at an early age, so it puts them at an increased risk for, you know, early pregnancy and perhaps out-of-wedlock pregnancy.

I believe there's literature that suggests they're more likely to have sexually transmitted diseases. And they're more likely to have a greater number of relationships, including more likely to -- to have divorce as part of their -- their situation.

In terms of other -- other kinds of -- of things that they're placed at increased risk for,